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Appl No.: 10/786,282

JUL 21 2006

Atty. Dkt.: UCF-388

REMARKS/ARGUMENTS

Favorable consideration of this application is respectfully requested. Applicant has amended claims 1 and 13, has previously canceled claims 2, 14, 25 and 26, and has added new claim 27. No new matter has been added. Favorable reconsideration of this application is, consequently, earnestly solicited in view of the following remarks.

Claims 1 and 4-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,680,769 (Lee et al.) in view of U.S. Patent No. 6,400,433 (Arakawa). Applicant has reviewed the prior art cited by the Examiner and respectfully disagrees with the finding of obviousness.

In regard to claims 1 and 13, Examiner has failed to specifically point out a basis for his allegation that Lee, Arakawa or Nakanishi teaches a common electrode hole directly above the protrusion shaped pixel electrode. It is clearly improper for the Examiner to arbitrarily ignore any of the novel features of independent claims 1 and 13. Claims 1 and 13 were previously amended to clarify that the empty hole in the common electrode is located directly above the protrusion shaped pixel electrode. The "directly above" placement of the common electrode hole is a novel requirement that produces an electric field that causes the novel flower-shaped vertical alignment recited in the preamble and in the body of the claim.

Examiner has failed to specifically point out a basis for his allegation that Lee teaches a common electrode hole directly above the protrusion shaped pixel electrode. Under the rules of the MPEP, if the applicant requests the examiner cite the reference(s) showing each and every one of the references that supports a rejection, the examiner must

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cite the reference or remove the rejection. Under the MPEP 706 and 37 CFR 1.104(c), applicant again requests the examiner specifically point out which uncited reference(s) describes and teaches these unsubstantiated opinions and assertions raised in the rejection that the entire invention is obvious under section 103. Under the MPEP and the CFR sections cited above, the examiner must cite references that show these unsubstantiated opinions and assertions mentioned in their rejection, or remove the section 103 rejection for at least these reasons alone. For the purpose of this response, Applicant assumes that Examiner is referring to the dielectric frame 53 on the common electrode 17 as shown in Figs. 4I and 4J (col. 5, lines 21-23).

As shown in Figs. 4I and 4J of Lee, the elongated pixel electrode 13 includes a raised portion approximately in the center of the pixel electrode. However, the pixel electrode extends outward a distance on both side of the raised portion. Fig. 4I shows a dielectric frame 53 directly above the raised portion of the pixel electrode so that the left and right extended sides of the pixel electrode are located directly below the common electrode 17. In other words, the window 51 does not cover the entire pixel electrode 13.

Unlike Lee, the protrusion shaped pixel electrode shown in Fig. 6 of the subject application is located entirely below the hole in the common electrode. In fact, the hole in the common electrode is larger than the protrusion shaped pixel electrode. Claim 1 has been amended to clarify that the entire protrusion shaped pixel electrode is located directly below the common electrode hole and a gap is formed on each side of the pixel electrode between the pixel electrode and the common electrode.

Applicant has attached a marked up copy of Fig. 6 to show the width of the hole above the pixel electrode and to show the gap space on each side of the pixel electrode

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between the pixel electrode and the adjacent common electrode as recited in amended claims 1 and 13. The alignment of the vertical alignment varies from the center of the pixel electrode toward each common electrode to form the flower-shaped vertical alignment as shown in Fig. 6 and recited in amended claim 13.

Although Arakawa teaches the use of circular polarizers as advantageously comprising a linear polarizer and a wide band quarter wave film so that light may be uniformly polarized across visible wavelengths of light, Arakawa does not overcome the deficiencies of Lee. For these reasons, Applicant believes that claims 1 and 4-12 are allowable under section 103 over Lee in view of Arakawa. Thus, Applicant requests removal of the rejection.

Claims 13 and 16-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Nakanishi. Claim 13 has been amended to clarify that the common electrode empty hole is located directly above the entire pixel electrode leaving a gap on each side of the pixel electrode between the pixel electrode and the common electrode. Claims 16-24 depend from base claim 13, for the reasons provided in regard to claim 1, Applicant believes that claims 13 and 16-24 are allowable under section 103 over Lee in view of Nakanishi. Thus, Applicant respectfully requests removal of the rejection.

Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Nakanishi and further in view of Shimoshikiryo. Although Shimoshikiryo teaches a hexagon shaped hole, it does not overcome the deficiencies of Lee. For the reasons provided in regard to claim 1, Applicant believes that claim 15 is allowable and requests removal of the rejection.


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Applicant has added new claim 27 to claim a shape of the protrusion shaped pixel electrode selected from a group consisting of a conical, spherical, semi-spherical tower, pyramid and column like structure described on page 7, lines 6-8. No new matter has been added.

In view of the foregoing considerations, it is respectfully urged that claims 1, 3-13, 15-24 and 27 be allowed. Such action is respectfully requested. If the Examiner believes that an interview would be helpful, the Examiner is requested to contact the attorney at the below listed number.

Respectfully Submitted;


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